Missouri City PEDESTRIAN AND BICYCLE PLAN

PUBLIC MEETING PRESENTATION

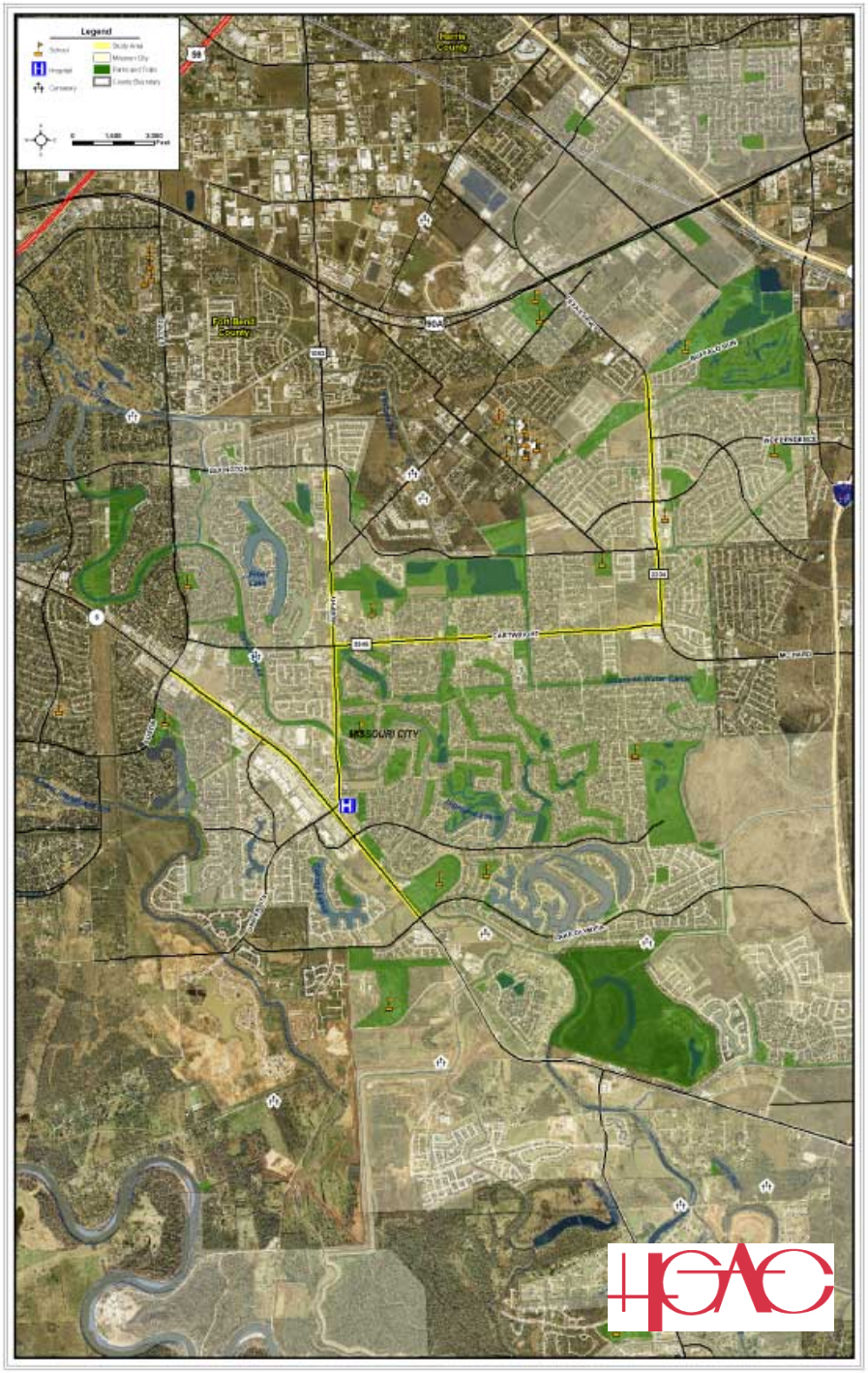
June 25, 2009

Study Purpose

To Develop a Plan that will support safe pedestrian and bicycle access and mobility in the Study Area.

Study Area

- The Study Area includes portions of:
  - FM 2234 (Texas Parkway) – Buffalo Run to Cartwright Road
  - FM 3345 (Cartwright Road) – Texas Parkway to Murphy
  - FM 1092 (Murphy Road) – Lexington to SH6
  - SH 6 – Dulles to Lake Olympia Parkway



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Scope of Services

- Develop Sponsors, Stakeholders and Vision Statement
- Needs Assessment
- Conceptual Plan
- Public Outreach and Coordination
- Implementation Plan

Vision, Goals & Objectives

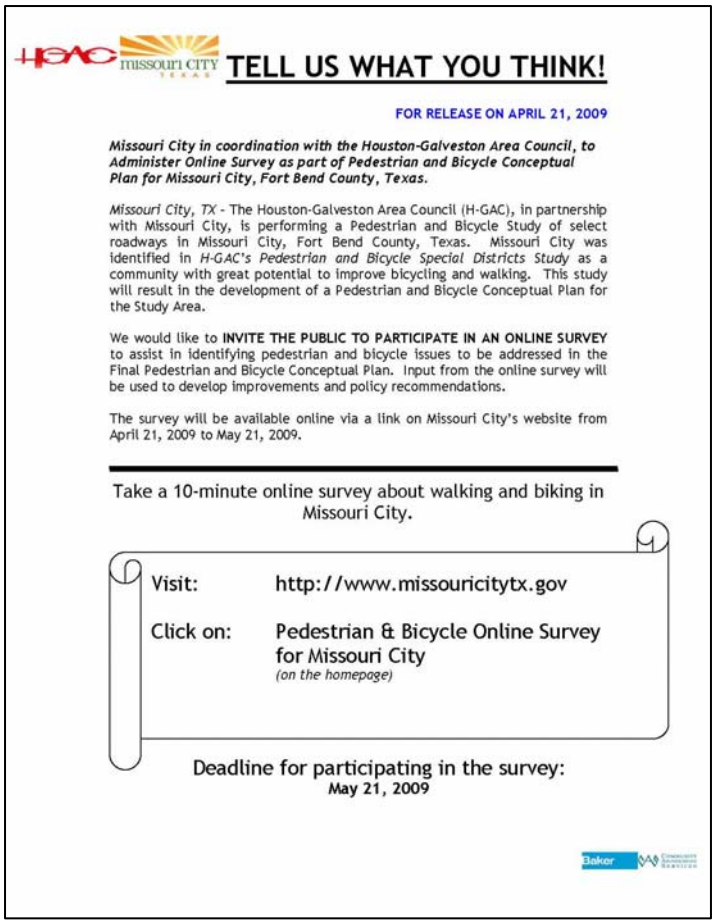
- Working in conjunction with the Parks and Trails Master Plan, and the Missouri City Comprehensive Plan.
- To create a safe, comfortable and pedestrian/bicycle-friendly environment that encourages people of all ages to walk and bike for everyday transportation and enjoyment.
- Goals include:
  - Institutionalize pedestrian and bicycle transportation
  - Improve pedestrian and bicycle safety
  - Increase the level of commuting via pedestrian walkways and bikeways
  - Fund, create and maintain a functional pedestrian and bicycle transportation system
  - Establish and maintain safe standards and guidelines
  - Integrate and coordinate multiple modes of transportation

Data Collected

- Traffic count data
- Bicycle and pedestrian crash data
- Bicycle and pedestrian count data
- Origin and destination information
- Roadway attributes and characteristics
- Bicycle and pedestrian facility data
- Arial mapping and GIS spatial data layers
- Existing plans and relevant documents

Online Survey

- Online survey available between April 21, and June 5, 2009 (extended date).
- Administered through www.surveymonkey.com.
- Gathered local knowledge and input on deficiencies and opportunities in Study Area.



TELL US WHAT YOU THINK!

FOR RELEASE ON APRIL 21, 2009

Missouri City in coordination with the Houston-Galveston Area Council, to Administer Online Survey as part of Pedestrian and Bicycle Conceptual Plan for Missouri City, Fort Bend County, Texas.

Missouri City, TX - The Houston-Galveston Area Council (H-GAC), in partnership with Missouri City, is performing a Pedestrian and Bicycle Study of select roadways in Missouri City, Fort Bend County, Texas. Missouri City was identified in *H-GAC's Pedestrian and Bicycle Special Districts Study* as a community with great potential to improve bicycling and walking. This study will result in the development of a Pedestrian and Bicycle Conceptual Plan for the Study Area.

We would like to **INVITE THE PUBLIC TO PARTICIPATE IN AN ONLINE SURVEY** to assist in identifying pedestrian and bicycle issues to be addressed in the Final Pedestrian and Bicycle Conceptual Plan. Input from the online survey will be used to develop improvements and policy recommendations.

The survey will be available online via a link on Missouri City's website from April 21, 2009 to May 21, 2009.

Take a 10-minute online survey about walking and biking in Missouri City.

Visit: http://www.missouricitytx.gov

Click on: Pedestrian & Bicycle Online Survey for Missouri City
(on the homepage)

Deadline for participating in the survey:
May 21, 2009

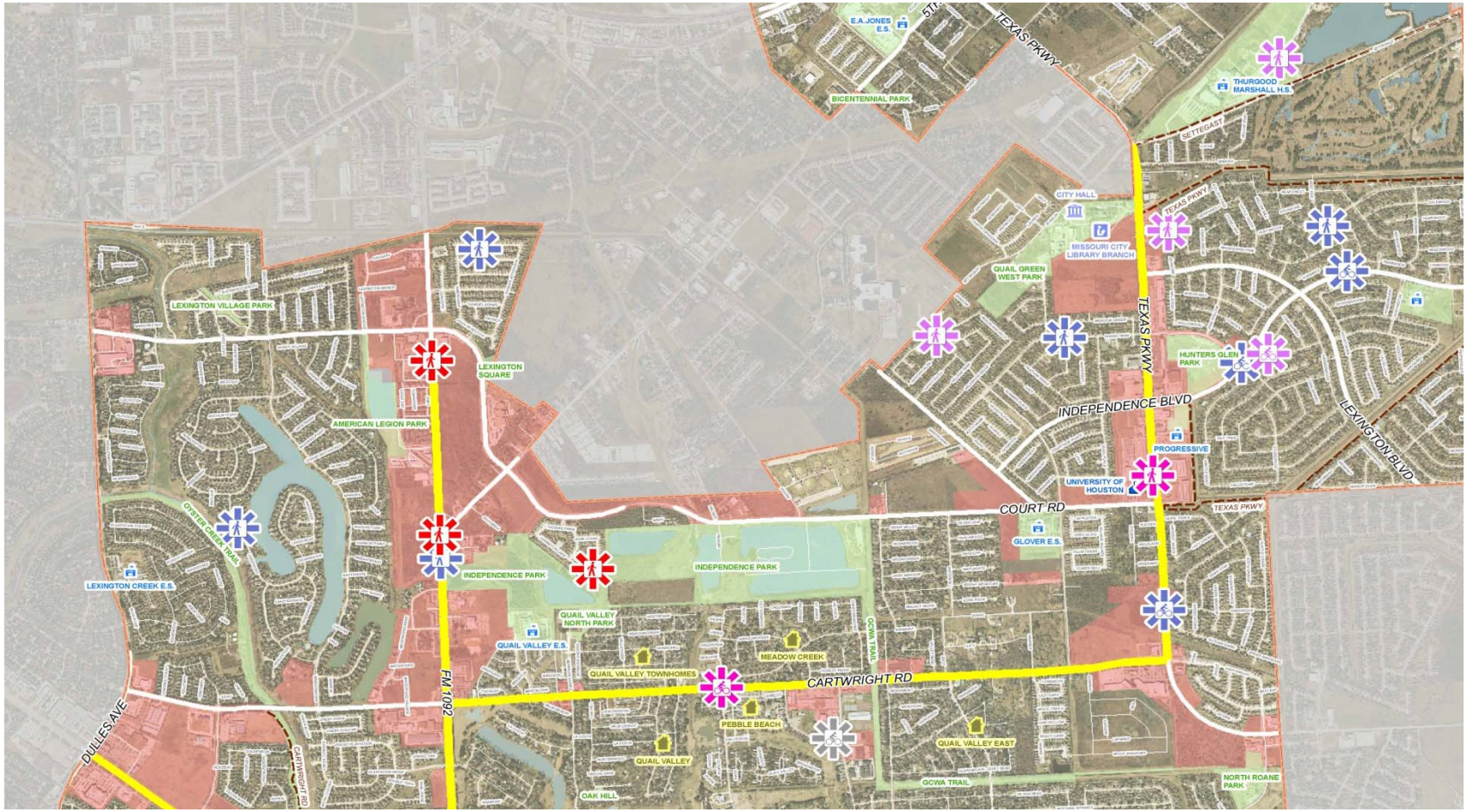
Online Survey

- 210 responses received
- Over three-quarters (77%) of the respondents were residents of Missouri City.
- Approximately 85% live within the Study Area.
- Over half of the survey respondents travel by motor vehicle on the Study Area roadways on a frequent basis.
- SH 6 is the most frequently traveled by motor vehicle by respondents (92%), followed by Murphy Road (83%), Cartwright Road (68%) and Texas Parkway (58%).

Crash Analysis (2005-2008)

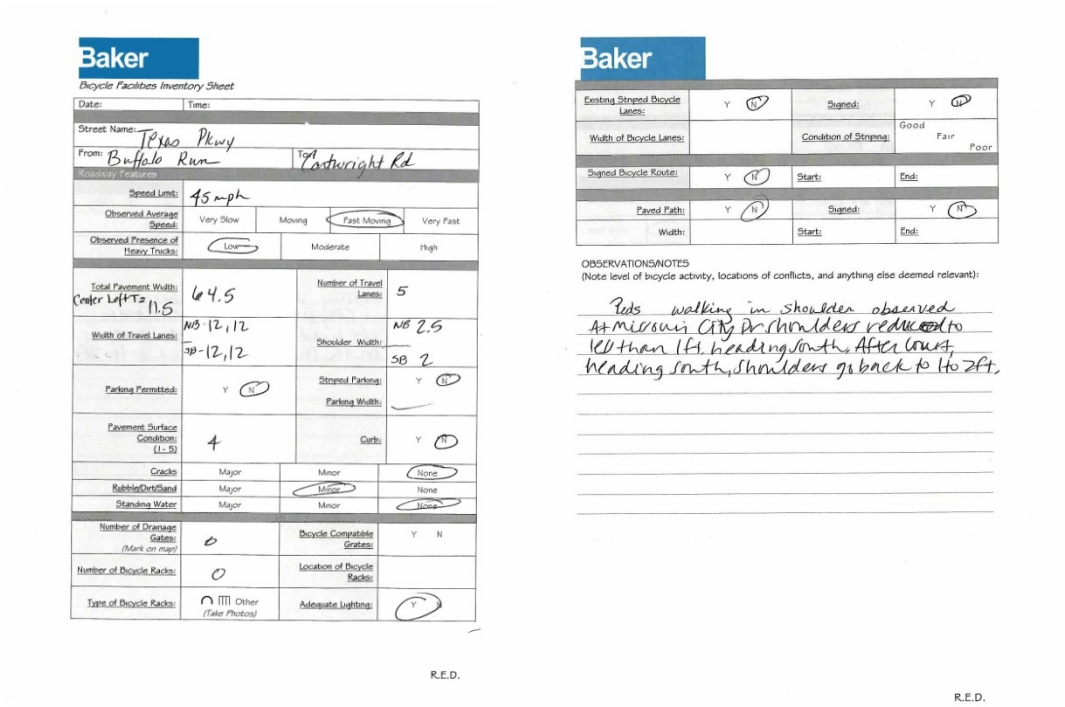
- 32 Bicycle/Pedestrian involved crashes
  - 8 Bicyclists, 24 Pedestrians
- 6 Fatal Crashes, all pedestrians
- More than half (18) were 18 years old and under
- 13 crashes in school areas with 3 fatalities (4 inside Study Area)
- 7 of the 8 bicyclists were not wearing a helmet
- 9 crashes occurred on Study Area roadways (SH 6, Murphy Road, Cartwright Road, and Texas Parkway)

Crash Density



Bicycle/Pedestrian Network Analysis

- Analysis of collected data
- Field inventory of existing facilities



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Bicycle Facilities Inventory Sheet

Date:	Time:		
Street Name:	Texas Pkwy		
From:	Buffalo Run	To:	Easturight Rd
Roadway Features			
Speed Limit:	45 mph		
Observed Average Speed:	Very Slow / Moving / (Fast Moving) / Very Fast		
Observed Presence of Heavy Trucks:	(Low) / Moderate / High		
Total Pavement Width: (Center Left=11.5)	64.5	Number of Travel Lanes:	5
Width of Travel Lanes:	NB 12, 12 / SB 12, 12	Shoulder Width:	NB 2.5 / SB 2
Parking Permitted:	Y (N)	Striped Parking: / Parking Width:	Y (N)
Pavement Surface Condition: (1-5)	4	Curb:	Y (N)
Cracks	Major / Minor / (None)		
Rubble/Dirt/Sand	Major / (Minor) / None		
Standing Water	Major / Minor / (None)		
Number of Drainage Gates: (Mark on map)	0	Bicycle Compatible Grates:	Y N
Number of Bicycle Racks:	0	Location of Bicycle Racks:	
Type of Bicycle Racks:	∩ ∏∏ Other (Take Photos)	Adequate Lighting:	(Y)

R.E.D.

Baker

Existing Striped Bicycle Lanes:	Y (N)	Signed:	Y (N)
Width of Bicycle Lanes:		Condition of Striping:	Good / Fair / Poor
Signed Bicycle Route:	Y (N)	Start:	End:
Paved Path:	Y (N)	Signed:	Y (N)
Width:		Start:	End:

OBSERVATIONS/NOTES
(Note level of bicycle activity, locations of conflicts, and anything else deemed relevant):

Peds walking in shoulder observed. At Missouri City Dr shoulders reduced to less than 1ft. heading south. After court, heading south, shoulders go back to 10 2ft.

R.E.D.

SH 6 (Austin/Dulles to Lake Olympia)

- AADT = 51,901 (2008) – 3 Intersection Average
- Speed Limit = 50 MPH
- Total Pavement Width = 107'
  - Six 12' Travel Lanes, One 16.5' Center Left Turn Lane
  - 9.5' Shoulders

- BICYCLE COMPATIBLE
- Partial Sidewalks at 6' Wide in Excellent Condition
- 40' to 43' Grass Buffer between Sidewalk and Shoulder

FM 1092 – Murphy Road (Lexington to SH 6)

- AADT = 32,652 (2008) – 2 Intersection Average
- Speed Limit = 50 MPH
- Total Pavement Width = 77'
  - Four 12' Travel Lanes, One 12' Center Left Turn Lane
  - 8' Shoulders

- BICYCLE COMPATIBLE
- Partial Sidewalks, 5' - 6' Wide in Excellent Condition
- 10' to 20' Grass Buffer between Sidewalk and Shoulder

FM 3345 – Cartwright Road

(Murphy to Texas Parkway)

- AADT = 21,938 – 24,122 (2008)
- Speed Limit = 40 MPH
- Total Pavement Width = 74'
  - Four 12.5' Travel Lanes, 20' Median
  - Four 12.5' Travel Lanes, Left Turn Only Lane with Median
  - No Shoulders
- NOT BICYCLE COMPATIBLE
  - 15' Travel Lane and/or 6' Shoulder needed for compatibility
- Sidewalks, 4' – 5' Wide in Mostly Fair Condition
- 0' to 7' Grass and/or Concrete Buffer between Sidewalk and Travel Lane

FM 2234 – Texas Parkway

(Cartwright to Buffalo Run)

- AADT = 30,864 (2008) – 2 Intersection Average
- Speed Limit = 45 MPH
- Total Pavement Width = 64.5'
  - Four 12' Travel Lanes, One 11.5' Center Left Turn Lane
  - 2' – 2.5' Shoulders

- NOT BICYCLE COMPATIBLE
  - 15' Travel Lane and/or 6' Shoulder needed for compatibility
- LIMITED SIDEWALK AVAILABLE

Intersection Assessment

- 11 intersections were assessed
- 3 major intersections (intersecting Study Area roadways)
  - Texas Parkway and Cartwright Road
  - Murphy Road and Cartwright Road
  - Murphy Road and SH 6
- Performed bicycle and pedestrian counts at 3 intersections
  - Murphy Road and SH 6
  - Murphy Road and El Dorado Boulevard
  - Cartwright Road and Quail Valley East Drive
- Performed an Origin and Destination Survey at Cartwright Road and Quail Valley East Drive

Opportunities/Deficiencies

- Opportunities:
  - Connect sidewalk network to trail network
  - Connect trail network to bicycle compatible roadways
  - Establish bicycle routes
  - Increased commuting using bikeways and walkways
  - Relief of traffic congestion
  - Overall improved quality of life
- Deficiencies:
  - Sidewalk network gaps on Texas Parkway, Murphy Road and SH 6
  - Texas Parkway and Cartwright Road are not bicycle compatible
  - Upgrades needed to pedestrian facilities at intersections
    - ADA compliant curb ramps
    - Pedestrian countdown signals
    - Increased pedestrian phase timing

Potential Improvements

- Install sidewalk and buffer
- Modify roadway cross sections to accommodate bicycle traffic
- Modify signal timing and phasing to increase pedestrian phase
- Install crosswalks and ADA compliant curb ramps at signalized intersections
- Install pedestrian countdown signals
- Designate bicycle routes and/or install Share the Road signs on currently compatible roadways (SH 6 and Murphy Road)
- Road diet for Cartwright Road
- Streetscape improvements for Murphy Road, Cartwright Road and Texas Parkway

Questions